I CLAIM:

1. A process for preparing an allogeneic cell population for administration to a human patient suffering from a bone marrow disorder potentially treatable by bone marrow transplantation, which comprises subjecting, *in vitro*, a population of donor cells enriched in T-cells to oxidative stress to induce in said T-cells an altered cytokine production profile and a reduced proliferative response.

2. The process of claim 1 wherein the oxidative stress is imparted by subjection to an ozone/oxygen gaseous mixture.

3. The process of claim 2 wherein the ozone/oxygen gas mixture is bubbled through an aqueous suspension of said T-cell containing population at a rate of from about 0.01 - 2 litres per minute.

4. The process of claim 3 wherein the ozone/oxygen gas mixture has an ozone content of from about 1.0 - 100 μg/ml.

5. The process of claim 2 wherein the ozone/oxygen gas mixture is bubbled through an aqueous suspension of said T-cell containing population at a rate of from about 0.05 - 1.0 litres per minute, the gas mixture having an ozone content of from about 3 - 70 μg/ml.

6. The process of claim 3 wherein the T-cell containing population is additionally subjected to UV radiation.

7. The process of claim 6 wherein the T-cell containing population is subjected to oxidative stress and UV radiation simultaneously.

8. The process of claim 7 wherein the UV radiation is UV-C.

9. The process claim 8 wherein the time of simultaneous subjection to oxidative stress and UV radiation is from 0.5 - 60 minutes.

10. The process of claim 9 wherein the time is from 2 - 5 minutes.

11. The process of claim 5 wherein the T-cell containing population is a human white blood cell fraction obtained from human peripheral blood by leukopheresis.

12 The process of claim 11 wherein the T-cell containing population is a peripheral blood mononuclear cell fraction from human blood.

13. The process of claim 1 wherein the oxidative stress is imparted by addition of a chemical oxidizing agent to a suspension of said T-cell enriched donor cell population.

14. The process of claim 13 wherein the T-cell enriched donor cell population is a peripheral blood mononuclear cell fraction from human blood.

15. A process of treating a mammalian patient for alleviation of a bone marrow disorder potentially treatable by bone marrow transplantation, with alleviation of consequentially developed graft versus host disease, which comprising administering to the patient allogeneic hematopoietic stem cells and allogeneic T-cells, at least a portion of said T-cells having been subjected to oxidative stress *in vitro*, prior to administration to the patient, so as to induce decreased inflammatory cytokine production and a reduced proliferative response therein.

16. The process of claim 15 wherein the T-cells are administered separately from the stem cells.

17. The process of claim 16 wherein the T-cells consist essentially of peripheral blood mononuclear cells obtained from peripheral human blood.

18. The process of claim 16 or wherein the T-cells have been subjected to oxidative stress by application thereto of a gaseous oxygen/ozone mixture.

19. The process of claim16 wherein the T-cells have been subjected to oxidative stress by application thereto of a chemical oxidizing agent.

20. The process of claim 18 wherein the T-cells have been additionally subjected to UV radiation, simultaneously with the subjection to oxidative stress.

21. A population of mammalian T-cells essentially free of stem cells, said T-cells having been subjected *in vitro* to oxidative stress so as to induce in said cells a reduced inflammatory cytokine production and a reduced proliferative response.

22. Peripheral blood mononuclear cells obtained from human peripheripheral blood by leukopheresis, said cells having been subjected *in vitro* to oxidative stress so as to induce in the T-cell component thereof a reduced inflammatory cytokine production and a reduced proliferative response.